

What is claimed is:

1. An information signal copy managing method comprising the steps of:

superimposing information indicative of a start of and information indicative of an end of a portion of each piece of information content, said portion being covered by copyright, onto said each piece of information content as electronic watermark information to transmit a resultant information signal; and

when copying and recording said information signal, determining completion of copying of said each piece of information content when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are detected from said electronic watermark information, thereby executing copy management.

2. The information signal copy managing method according to claim 1, wherein copy control information is further added to said each piece of information content as electronic watermark information and, when copying and recording said each piece of information content, copying is controlled for said each piece of information content on the basis of said copy control information detected from said signal information.

A 3. The information signal copy managing method according to claim 1 ~~or 2~~, wherein identification information of said each piece of information content is further added to said information signal as electronic watermark information and, when copying and recording said each piece of information content, copying of said each piece of information content is managed also by use of said identification information detected from said information signal.

4. An information signal copy managing method comprising the steps of:

attaching identification information for identifying each piece of information content to the same and superimposing information indicative of a start of and information indicative of an end of a portion of said each piece of information content, said portion being covered by copyright, onto said each piece of information content to transmit a resultant information signal; and

identifying said each piece of information content to be copied and recorded by said identification information for each recording apparatus and, when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are detected from said electronic watermark

information, updating copy permitted count for said each piece of information content.

5. The information signal copy managing method according to claim 4, wherein said identification information is also superimposed on said each piece of information content as electronic watermark information.

a 6. The information signal copy managing method according to claim 4 ~~or~~ 5, wherein said recording apparatus manages copy count managing information by storing the same in a memory thereof as copy history information, said copy count managing information being for managing a copy permitted count of said each piece of information content identified by said identification information; and

when copying said each piece of information content, references said copy history information about said each piece of information content to be copied to control copying and, when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are determined from said electronic watermark information, updates said copy history information about said each piece of information content.

7. The information signal copy managing method

according to claim 6, wherein said information signal is further attached with information about copy permitted count of said each piece of information content;

when recording said each piece of information content for the first time by said recording apparatus, said copy permitted count extracted from said information signal is related with said identification information of said each piece of information content to be stored in said memory of said recording apparatus as said copy history information; and

when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are determined from said electronic watermark information, said copy permitted count in said memory is decremented by one for the copied and recorded each piece of information content.

8. The information signal copy managing method according to claim 7, wherein the information about said copy permitted count is also superimposed on said each piece of information content of said information signal as electronic watermark information.

a 9. The information signal copy managing method according to <sup>claim 4</sup> ~~any one of claims 4 through 8~~, wherein said information signal is further attached with copy control

information for said each piece of information content as electronic watermark information.

10. The information signal copy managing method according to <sup>Claim 1</sup> ~~any one of claims 1 through 9~~, wherein a unit of said each piece of information content identified by said identification information is a piece of music indicated by one title.

11. An information signal recording apparatus for recording an information signal on a recording medium, comprising:

a superimposing means for superimposing, on each piece of information content, information indicative of a start of and information indicative of an end of a portion of said each piece of information content, said portion being covered by copyright, as electronic watermark information.

12. The information signal recording apparatus for recording an information signal on a recording medium according to claim 11, further comprising:

an attaching means for attaching copy control information to said each piece of information content as electronic watermark information.

13. The information signal recording apparatus for recording an information signal on a recording medium

*a* according to claim 11 ~~or 12~~, further comprising:

an attaching means for attaching identification information for identifying said each piece of information content to the same as electronic watermark information.

14. The information signal recording apparatus for recording an information signal on a recording medium according to <sup>Claim 11</sup> ~~any one of claims 11 through 13~~, further comprising:

an attaching means for attaching information about copy permitted count for said each piece of information content to the same as electronic watermark information.

15. The information signal recording apparatus for recording an information signal on a recording medium according to <sup>Claim 11</sup> ~~any one of claims 11 through 14~~, wherein a unit of said each piece of information content identified by said identification information is a piece of music indicated by one title.

16. An information signal output apparatus for outputting an information signal, comprising:

a superimposing means for superimposing, on each piece of information content, information indicative of a start of and information indicative of an end of a portion of said each piece of information content, said

portion being covered by copyright, as electronic watermark information.

17. The information signal output apparatus for outputting an information signal according to claim 16, further comprising:

an attaching means for attaching copy control information to said each piece of information content as electronic watermark information.

18. The information signal output apparatus for *a* outputting an information signal according to claim 16 ~~or 17~~, further comprising:

an attaching means for attaching identification information for identifying said each piece of information content to the same as electronic watermark information.

19. The information signal output apparatus *a* according to <sup>Claim 14</sup> ~~any one of claims 16 through 18~~, further comprising:

an attaching means for attaching information about copy permitted count for said each piece of information content to the same.

20. The information signal output apparatus for outputting an information signal according to <sup>Claim 16</sup> ~~any one of claims 16 through 19~~, wherein a unit of said each piece

of information content identified by said identification information is a piece of music indicated by one title.

21. An information signal recording apparatus for copying and recording an information signal in which information indicative of a start of and information indicative of an end of a portion of each piece of information content, said portion being covered by copyright, are superimposed on said each piece of information content as electronic watermark information, said information signal recording apparatus comprising:

an electronic watermark information detecting means for detecting said electronic watermark information from said each piece of information content to be copied and recorded; and

a copy completion post-processing means for executing post-processing as completion of copying of said each piece of information content when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are detected by said electronic watermark information detecting means.

22. The information signal recording apparatus according to claim 21, wherein said information signal is further attached with copy control information as



electronic watermark information for said each piece of information content; and

said information signal recording apparatus further comprising a copy control means for executing copy control on said each piece of information content on the basis of said copy control information detected from said information signal at the time of copying and recording of said each piece of information content.

23. An information signal recording apparatus for copying and recording an information signal in which identification information for identifying each piece of information content is attached to the same and information indicative of a start of and information indicative of an end of a portion of said each piece of information content, said portion being covered by copyright, are superimposed on said each piece of information content as electronic watermark information, said information signal recording apparatus comprising:

an identification information detecting means for detecting said identification information from said each piece of information content to be copied and recorded;

a memory for storing and managing, as copy history information, copy count managing information for managing copy permitted count for said each piece of information

content identified by said identification information detected by said identification information detecting means;

a copy control means for executing copying and recording control on the basis of said copy history information stored in said memory about said each piece of information content identified by said identification information detected by said identification information detecting means when copying and recording said each piece of information content;

an electronic watermark information detecting means for detecting said electronic watermark information from said each piece of information content to be copied and recorded; and

a copy history updating means for updating said copy history information about said each piece of information content when both of said information indicative of the start of and said information indicative of the end of said copyrighted portion are detected by said electronic watermark information detecting means if copying and recording are executed by said copy control means.

24. The information signal recording apparatus according to claim 23, wherein said information signal is

further attached with copy control information for said each piece of information content as electronic watermark information; and

said copy control means also executes copy control on said each piece of information content on the basis of said copy control information detected from said information signal at copying and recording said each piece of information content.

25. The information signal recording apparatus according to claim 24, wherein said information signal is further attached with information about copy permitted count for said each of information content as electronic watermark information;

said information signal recording apparatus further comprising a means for recording, in said memory, said copy permitted count extracted from said information signal, in relation to said identification information for said each piece of information content, as said copy history information at recording of said each piece of information content for the first time; and

said copy history updating means decrements said copy permitted count in said memory by one for the copied and recorded each piece of information content when both of said information indicative of the start of and said

information indicative of the end of said copyrighted portion are determined from said electronic watermark information.

u 26. The information signal recording apparatus according to <sup>claim 23</sup> ~~any one of claims 23 through 25~~, wherein a unit of said each piece of information content identified by said identification information is a piece of music indicated by one title.

27. An information signal copy managing method for managing copying comprising the steps of:

superimposing identification information for each piece of information content as electronic watermark information onto at least an entire section of said each piece of information content, said entire section being covered by copyright and transmitting a resultant information signal;

detecting a change point in said identification information of said electronic watermark information as a copy start position and a copy end position of said each piece of information content at copying and recording of said information signal; and

determining completion of copying of said each piece of information content when both of said copy start position and said copy end position are detected.

28. The information signal copy managing method according to claim 27, wherein said information signal is further attached with copy control information as electronic watermark information for said each piece of information content and copy control is executed on said each piece of information content on the basis of said copy control information detected from said information signal at copying and recording of said each piece of information content.

*a* 29. The information signal copy managing method according to claim 27 ~~or 28~~, wherein copy management is executed on said each piece of information content also by use of said identification information detected from said information signal at copying and recording of said each piece of information content.

30. The information signal copy managing method comprising the steps of:

superimposing identification information for each piece of information content as electronic watermark information onto at least an entire section of said each piece of information content, said entire section being covered by copyright and transmitting a resultant information signal;

identifying, by said identification information,

for each recording apparatus, said each piece of information content to be copied and recorded and, at the same time, detecting a change point in said identification information as a copy start position and a copy end position of said each piece of information content; and

when both of said copy start position and said copy end position are detected, updating a copy permitted count for said each piece of information content.

31. The information signal copy managing method according to claim 30, wherein said recording apparatus

storing for management, in a memory of said recording apparatus, as copy history information, copy count managing information for managing said copy permitted count for said each piece of information content identified by said identification information; and

when copying said each piece of information content, referencing said copy history information about said each piece of information content to be copied to control copying and, when both of said copy start position and said copy end position are detected, updating said copy history information about said each piece of information content.

32. The information signal copy managing method according to claim 31, wherein said information signal is further attached with information about said copy permitted count for said each piece of information content;

when said information content is recorded by said recording apparatus for the first time, said copy permitted count extracted from said information signal is recorded, as said copy history information, in said memory of said recording apparatus in relation with said identification information of said information content; and

when both of said copy start position and said copy end position are detected, said copy permitted count in said memory is decremented by one for the copied and recorded information content.

33. The information signal copy managing method according to claim 32, wherein the information about said copy permitted count is also superimposed on each piece of said information content of said information signal as electronic watermark information.

34. The information signal copy managing method <sup>claim 30</sup> ~~according to any one of claims 30 through 33~~, wherein said information signal is further attached with copy

control information for each piece of said information content as electronic watermark information.

a 35. The information signal copy managing method according to <sup>claim 27</sup> ~~any one of claims 27 through 34~~, wherein a unit of said information content identified by said identification information is a piece of music indicated by one title.

36. A recording medium recorded with an information signal in which information indicative of a start of and information indicative of an end of a portion of each piece of information content, said portion being covered by copyright, are superimposed on said each piece of information content as electronic watermark information.

37. The recording medium according to claim 36, wherein said information signal is further attached with copy control information for said each piece of information content as electronic watermark information.

n 38. The recording medium according to claim 36 ~~or 37~~, wherein said information signal is still further attached with identification information for identifying said each piece of information content as electronic watermark information.

39. The recording medium according to claim 38,



wherein said information signal is yet further attached with a copy permitted count for said each piece of information content as electronic watermark information.

40. A recording medium recorded with an information signal in which identification information for identifying each piece of information content is superimposed, as electronic watermark information, at least on an entire section of said each piece of information content, said entire section being covered by copyright.

41. The recording medium according to claim 40, wherein said information signal is further attached with copy control information for said each piece of information content as electronic watermark information.

42. The recording medium according to claim 41, wherein said information signal is still further attached with a copy permitted count for said each piece of information content as electronic watermark information.